Appendix C
Soils

The following soil series descriptions were obtained from the Natural Resources Conservation Service (NRCS) Soil Survey and the General Ratings for Urban Development, published by the Fairfax County Soil Science Office, August, 1993.

1 - Mixed Alluvial Land (Hydric Soil) - This soil type has a high shrink-swell potential and has high water table conditions. This series may also be subject to land slippage on unstable slopes and is rated as poor for foundation support and septic drain fields because of high seasonal groundwater tables in drainage ways, or low lying areas, and flooding following storms. The series has a low erosion potential.

6 - Hyattsville Fine Sandy Loam - This soil has moderate problems with high seasonal groundwater tables in drainage ways and low lying areas. It is also noted as having poor values for foundation support. It is rated as having a low erosion potential and is rated as poor for septic drain fields because of high seasonal groundwater tables in drainage ways, or low lying areas.

34 - Woodstown Fine Sandy Loam - This is a moderately well-drained soil and permeability is moderate. Run-off is also moderate. It is rated as having moderate capabilities for foundation support. Most areas where this soil type occurs are used for growing agricultural crops or pine forest. This series is rated as having a low erosion potential and is rated as poor for septic drain fields because of high seasonal groundwater tables in drainage ways, or low lying areas

37 - Beltsville Silt Loam - The Beltsville series consists of very deep, moderately well drained, slowly to very slowly permeable soils and are found on upland areas. It is rated as having moderate capabilities for foundation support and is moderately susceptible to erosion. Areas where this series has been observed are used for crops and some pasture, however, large areas of this series have been included in residential developments. This series is rated as having a moderate erosion potential and is rated as poor for septic drain fields because of perched ground water above soil or rock layers.

38 - Mecklenburg Silt Loam - This soil type has a moderate shrink-swell potential and has a slow to very slow permeability rate. It is rated as having low bearing values for foundation support. It has perched groundwater above the restrictive soil and or rock layers. This series is rated as having a moderate erosion potential and is rated as poor for septic drain fields because of clays with a shrink-swell potential.

44 - Caroline Silt Loam - Soils in this series are very deep, well drained and have moderately slow or slow permeability with moderate to very rapid run-off. It is considered marginal for foundation support because of clays with moderate to high shrink-swell potential. This series is

rated as having a moderate erosion potential and is rated as poor for septic drain fields because of clays with a shrink-swell potential.

45 - Matapeake Silt Loam - This series is very deep, well drained with moderate to moderately slow permeability. Surface run-off is medium and the erosion potential is moderate. This series is rated as good for foundation support with little to no shrink-swell potential. This series is rated as having a moderate erosion potential and is rated as fair for septic drain fields

46 - Mattapex Silt Loam - The Mattapex series is very deep and moderately well drained. Permeability is moderate to moderately slow, and surface runoff is slow to medium. This series is rated as moderate for foundation support because of perched ground water above restrictive soil or rock layers. This series is rated as having a moderate erosion potential and is rated as poor for septic drain fields.

49 - Lunt Fine Sandy Loam - The Lunt series are very deep and well drained with moderate permeability and generally occur on slopes of two to 25 percent. This series is rated as poor to marginal for foundation support and septic drain fields because of potentially unstable slopes, clays with high shrink-swell potential, and perched ground water above restrictive soil or rock layers. This series is rated as having a moderate erosion potential.

54 - Sassafras Fine Sandy Loam - The Sassafras series are very deep, well drained with moderate or moderately slow permeability. This series is rated as good for foundation support and septic drain fields and has a moderate erosion potential.

61 - Rolling Land Gravelly Sediments and 64 - Silty/Clayey Sediments - No description was available for these soils/series from the NRCS. The Fairfax County Soil Science Office rated these soils as marginal for foundation support and septic drain fields because potentially unstable slopes, clays with high shrink-swell potential, and perched ground water above restrictive soil and rock layers. Both soil types have a high erosion potential.

89 - Tidal Marsh - No description was available for this soil from the NRCS. The Fairfax County Soil Science Office rated this soil as poor for foundation support and septic drain fields because of flooding hazard and high seasonal groundwater tables. This soil type has a low erosion potential.

118 - Marine Clay - The Marine Clay series is very deep and excessively drained with rapid to moderately rapid permeability. Internal free water is common three to six months of the year. Construction on the Marine Clay is not recommended because of the very high shrink-swell potential. In Fairfax County, damage has occurred to many homes built on this soil series from cracking, chimneys pulling away from the house, and doors not closing. The construction difficulties can be overcome by using proper design and engineering.